

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

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Claim 1 (currently amended) A well or pipe repair product comprising a radially deployable flexible preform to form, after deploying, a tubular structure that is curable by polymerization after positioning it in a well or in a line and moulds to the shape thereof after curing, comprising in its constitution at least one resin of an unsaturated polyester resin or a vinylester resin comprising in its chemical formula at least one reactive multiple bond that has a dynamic viscosity of less than about 2500 mPa.s at a temperature of about 20°C to about 70°C, and is capable of subsequent reaction with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond positioned at one end or the other of the molecular chain and/or on a pendant group, wherein the preform contains at least one resin with a residual latent period, after storage at 22°C for a period of 20 days or more, of at least 3 hours at a temperature of about 10°C to about 90°C.

Claim 2 (cancelled)

Claim 3 (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 1, wherein the resin comprises at least one polymerisable oligomer and/or at least one monomer comprising at least one multiple bond in their chemical

formulae, wherein the monomer is a vinyl, an acrylic, a methacrylic, an allyl or a maleic compound.

Claim 4 (cancelled)

Claim 5 (currently amended) A flexible ~~preform~~ well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond is an unsaturated polyester resin synthesized from at least one saturated or unsaturated polyol, and at least one saturated or unsaturated dibasic acid or anhydride, at least one of these compounds being an unsaturated compound.

Claim 6 (currently amended) A flexible ~~preform~~ well or pipe repair product according to claim 5, wherein the polyol used to synthesize the unsaturated polyester is a butylene glycol, a neopentyl glycol, a neopentyl glycol substituted by at least one halogen, a trimethylpentanediol, a 1,4-cyclohexane-dimethanol, a heavy diol obtained from bisphenol A, a bisphenol F, a bisphenol AF, an oxyalkylated bisphenol comprising at least one halogen on the aromatic nucleus/nuclei, an above product wherein the aromatic nucleus/nuclei is/are at least partially hydrogenated, a heavy novolac alcohol, or a cresol-novolac cresol.

Claim 7 (currently amended) A ~~preform~~ well or pipe repair product according to claim 5, wherein the anhydride or an acid used to synthesize the unsaturated polyester

is a maleic anhydride, a maleic acid, a fumaric acid, an itaconic acid, a citraconic acid, a cyclanic acid obtained from a hexahydrophthalic anhydride, an isophthalic acid, a terephthalic acid, a tetrahydrophthalic anhydride, a methylnadic anhydride, a hexahydrophthalic anhydride, or a halogenated phthalic anhydride.

Claim 8 (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond is a vinylester resin synthesized from a compound comprising at least one diepoxy compound on at least one unsaturated acid.

Claim 9 (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 8, wherein the unsaturated acid is an acrylic acid, a methacrylic acid, or a diepoxy compound of a bisphenol A, a bisphenol F, a bisphenol AF, a novolac resin or a cresol-novolac resin.

Claim 10 (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 1, containing at least two different resins.

Claim 11 (currently amended) A ~~preform~~ well or pipe repair product according to claim 3, wherein the polymerisable oligomer and/or monomer comprising at least one multiple bond is a styrene, a trimethylolpropane triacrylate, a divinyl benzene, a butyl acrylate, a tert-butyl acrylate, a 2-ethylhexyl acrylate, a methyl acrylate, an ethyl

acrylate, a hydroxypropyl acrylate, a 2-hydroxyethyl acrylate, a methyl methacrylate, an ethyl methacrylate, a monochlorostyrene, a dichlorostyrene, a monobromostyrene, a dibromostyrene, a vinyl toluene, a vinyl acetate, a diallyl ortho-phthalate, a diallyl isophthalate, a triallyl cyanurate, a triallyl carbonate, a diallylglycol carbonate, a bisphenol A, F or AF acrylate or dimethacrylate, a dioxyalkylated or polyoxyalkylated bisphenol A, F or AF diacrylate or dimethacrylate in which the alkyl group(s) contains 2 to 24 carbon atoms.

01 **Claim 12 (currently amended)** A ~~flexible preform~~ well or pipe repair product according to claim 1, containing at least one resin comprising in its chemical formula at least one multiple bond, wherein the at least one resin further comprises at least one monomer not forming part of the sub family of polymer vinyl esters, or of oligomers or pre-polymers of a bisphenol A derivative diacrylate oligomer, an epoxydimethacrylate oligomer diluted with trimethylolpropane diacrylate, or a diethoxylated dimethacrylate bisphenol A derivative.

Claim 13 (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 1, wherein the resin polymerization reactions are initiated as a function of the service temperatures employed for the flexible preform by selecting at least one suitable initiator of an organic peroxide.

Claim 14 (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 1, wherein the resin polymerization reactions are initiated as a

function of the service temperatures employed for the flexible preform by at least one initiator comprising azoisobutyronitrile.

Claim 15 (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 1, wherein the resin polymerization reactions are initiated as a function of the service temperatures employed for the flexible preform by at least one initiator of a sulfur or a potassium persulfate with molecular formula $K_2S_2O_8$.

01 **Claim 16** (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 13, wherein the resin polymerization reactions are initiated as a function of the service temperatures employed for the flexible preform by at least one initiator associated with at least one accelerator comprising a cobalt salt and/or a tertiary amine.

Claim 17 (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 13, wherein the resin polymerization reactions are initiated as a function of the service temperatures employed for the flexible preform by at least one initiator associated with at least one polymerization inhibitor comprising a hydroquinone or tertibutyl catechol.

Claim 18 (cancelled)

Claim 19 (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 1, containing at least one resin with a residual latent period, after storage at 4°C or less for a period of at least 60 days, of at least 8 hours at a temperature of about 40°C to about 80°C.

DI **Claim 20 (currently amended)** A ~~flexible preform~~ well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond in its formula that can subsequently react with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond located at one end or the other of the molecular chain and/or in a pendant group.

Claim 21 (currently amended) A ~~preform~~ well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond in its formula that can subsequently react with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond located at one end or the other of the molecular chain and/or in a pendant group is selected from the group formed by resins that enable manual, mechanical or pressure or vacuum injection impregnation of fibrous supports comprising at least one glass fiber, basalt fiber, carbon fiber, ceramic fiber, natural fiber, synthetic fiber, or metal fiber constituting the reinforcement of said flexible preform.

Claim 22 (currently amended) A preform well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond in its formula that can subsequently react with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond located at one end or the other of the molecular chain and/or in a pendant group is a non aggressive chemical resin.

D1 **Claim 23 (currently amended)** A preform well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond in its formula that can subsequently react with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond located at one end or the other of the molecular chain and/or in a pendant group is a resin with a polymerization temperature compatible with the heat resistance of the polymer, an elastic skin, and the at least one component constituting the preform walls.

Claim 24 (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 23, wherein the resin polymerization temperature is 160°C or less.

Claim 25 (currently amended) A preform well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond in its formula that can subsequently react with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond located at one end or

the other of the molecular chain and/or in a pendant group is a resin forming, after polymerization in combination with a fibrous support, a composite with a petroleum absorption of less than 3% by weight at a temperature of about 90°C.

Claim 26 (currently amended) A ~~perform~~ well or pipe repair product according to claim 1, wherein the resin comprising at least one reactive multiple bond in its formula that can subsequently react with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond located at one end or the other of the molecular chain and/or in a pendant group is a resin forming a composite having a water absorption of less than 4% by weight at a temperature of about 90°C after polymerization in combination with a fibrous support.

Claim 27 (currently amended) A ~~perform~~ well or pipe repair product according to claim 1, further comprising at least one flow regulator.

Claim 28 (currently amended) A ~~flexible support~~ well or pipe repair product according to claim 27, wherein the flow regulator is a polystyrene, a polyvinylacetate, a polymethylmethacrylate or a polycaprolactame.

Claim 29 (currently amended) A ~~perform~~ well or pipe repair product according to claim 7, wherein the halogenated phthalic anhydride is

tetrachlorophthalic anhydride, tetrabromophthalic anhydride, or hexachloro-endomethylene tetrahydrophthalic anhydride.

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Claim 30 (currently amended) A well or pipe repair product comprising a radially deployable flexible preform to form, after deploying, a tubular structure that is curable by polymerization after positioning it in a well or in a line and moulds to the shape thereof after curing, comprising in its constitution at least one resin of an unsaturated polyester resin or a vinylester resin comprising in its chemical formula at least one reactive multiple bond that has a dynamic viscosity of less than about 2500 mPa.s at a temperature of about 20°C to about 70°C, and is capable of subsequent reaction with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond positioned at one end or the other of the molecular chain and/or on a pendant group and is selected from the group formed by resins that enable manual, mechanical or pressure or vacuum injection impregnation of fibrous supports comprising at least one glass fiber, basalt fiber, carbon fiber, ceramic fiber, natural fiber, synthetic fiber, or metal fiber constituting the reinforcement of said flexible preform, is a non-aggressive chemical resin, is a resin with a polymerization temperature compatible with the heat resistance of the polymer and of 160°C or less, an elastic skin, and the at least one component constituting the preform walls, and is a resin forming, after polymerization in combination with a fibrous support, a composite with a petroleum absorption of less than 3% by weight at a temperature of about 90°C; wherein the preform contains at least one resin with a residual latent period, after storage at 22°C

for a period of 20 days or more, of at least 3 hours at a temperature of about 10°C to about 90°C.

Claim 31 (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 1, comprising 100 pwhr of an epoxydimethacrylate oligomer, 3 pwhr of a peroxide, and 1 pwhr of an inhibitor.

D1 **Claim 32** (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 31, comprising 2 pwhr of an inhibitor.

Claim 33 (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 31, comprising 3 pwhr of an inhibitor.

Claim 34 (currently amended) A ~~flexible preform~~ well or pipe repair product according to claim 1, comprising 100 pwhr of a bisphenol A methacrylate, and 3 pwhr of an inhibitor.

Claim 35 (currently amended) A ~~preform~~ well or pipe repair product according to claim 5, wherein the unsaturated polyester resin is synthesized from an anhydride wherein the anhydride is tetrachlorophthalic anhydride, tetrabromophthalic anhydride, or hexachloro-endomethylene tetrahydrophthalic anhydride.

Claim 36 (currently amended) A preform well or pipe repair product according to claim 1, wherein the at least one resin is an unsaturated vinylester resin.

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Claim 37 (currently amended) A radially deployable flexible preform to form, after deploying, a tubular structure that is curable by polymerization after positioning it in a well or in a line and moulds to the shape thereof after curing, consisting essentially of at least one resin of an unsaturated polyester resin or a vinylester resin comprising in its chemical formula at least one reactive multiple bond that has a dynamic viscosity of less than about 2500 mPa.s at a temperature of about 20°C to about 70°C, and is capable of subsequent reaction with compounds comprising in their constitution at least one terminal reactive multiple bond or a reactive multiple bond positioned at one end or the other of the molecular chain and/or on a pendant group and an inhibitor, wherein the preform contains at least one resin with a residual latent period, after storage at 22°C for a period of 20 days or more, of at least 3 hours at a temperature of about 10°C to about 90°C.

Claim 38 (currently amended) A radially deployable flexible preform to form, after deploying, a tubular structure that is curable by polymerization after positioning it in a well or in a line and moulds to the shape thereof after curing, consisting of at least one resin of an unsaturated polyester resin or a vinylester resin comprising in its chemical formula at least one reactive multiple bond that has a dynamic viscosity of less than about 2500 mPa.s at a temperature of about 20°C to about 70°C, and is capable of subsequent reaction with at least one polymerisable oligomer and/or at least one monomer of a vinyl,

DI an acrylic, a methacrylic, an allyl or a maleic compound, comprising at least one terminal reactive multiple bond or a reactive multiple bond positioned at one end or the other of the molecular chain and/or on a pendant group and an inhibitor, wherein the preform contains at least one resin with a residual latent period, after storage at 22°C for a period of 20 days or more, of at least 3 hours at a temperature of about 10°C to about 90°C.
